

forming a metal seed layer on the barrier layer by reacting the barrier layer with a first plating solution; and

forming a metal layer on the metal seed layer by exposing the substrate to a second plating solution.

A1 cond
2. (Amended) The method of claim 1, wherein said barrier layer is a layer of material selected from the group consisting of titanium, titanium nitride, tantalum, tantalum nitride, tungsten nitride, tungsten-tantalum alloys, and tantalum silicon nitride[, and other ternary compounds].

48
47. (Amended) A method of forming a metal interconnect for a semiconductor circuit, comprising the steps of:

providing a semiconductor substrate having electronic devices formed thereon;

A2
forming a barrier layer, containing a reducing agent, on a top surface of the substrate and the devices;

forming a metal seed layer on the barrier layer by reacting the barrier layer with a first plating solution; and

forming a metal interconnect layer on the metal seed layer by exposing the substrate to a second plating solution.

51
50. (Amended) The method of claim ⁴⁸47, wherein the barrier layer is a layer of material selected from the group consisting of titanium, titanium nitride, tantalum, tantalum nitride,

a3
cond tungsten nitride, tungsten-tantalum alloys, and tantalum silicon nitride[, and other ternary compounds].

a4
84
83
~~82~~. (Amended) The method of claim ~~81~~, wherein the barrier layer is a layer of material selected from the group consisting of titanium, titanium nitride, tantalum, tantalum nitride, tungsten nitride, tungsten-tantalum alloys, and tantalum silicon nitride[, and other ternary compounds].

a5
103
99
~~100~~. (Amended) The method of claim ~~96~~, wherein the barrier layer is a layer of material selected from the group consisting of titanium, titanium nitride, tantalum, tantalum nitride, tungsten nitride, tungsten-tantalum alloys, and tantalum silicon nitride[, and other ternary compounds].

[Please add the following new claims:

26
~~112~~. (New) The method of claim 1, wherein the barrier layer contains a ternary compound.

76
48
~~113~~. (New) The method of claim ~~47~~, wherein the barrier layer contains a ternary compound.

a6
85
83
~~114~~. (New) The method of claim ~~81~~, wherein the barrier layer contains a ternary compound.

114
99
~~115~~. (New) The method of claim ~~96~~, wherein the barrier layer contains a ternary compound.
